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BTP-R580

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USER'S MANUAL

Receipt Printer

BTP-R580

Shandong New Beiyang Information Technology Co., Ltd.
ORIENT Technologies bv

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Declarations

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Warnings and Cautions in this manual

⚠ Warning: Items shall be strictly followed to avoid damages to body and equipment.

⚠ Caution: Items with important information and prompts for operating the printer.

Certifications

The quality control system of SNBC has been approved of the following certification.

ISO 9001 REGISTERED
DNV
MGMT. SYS.
RvA C 024
DNV Certification B.V., The Netherlands

(DNV)ISO9001:2000

The environmental control system of SNBC has been approved of the following certification.

(DNV)ISO14001:2004

BTP-R580 has been approved of the following certification.

WEEE directive 2002/96/EC

ORIENT Technologies bv is complying with all aspects of the European Union's WEEE directive 2002/96/EC. All the customers and end-users can send the products that have reached the end of their lifes and are to be recycled, to ORIENT Technologies bv. ORIENT Technologies bv will take care of the recycling of these products in an environmentally responsible manner in accordance with WEEE directive.

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General Safety Instruction

Before installing and using the printer, please read the following items carefully:

1．Safety Instructions

Caution: Do not touch the cutter of the printer.

Heating: The print head is at a high temperature during printing or just after operation. Do not touch it and its peripherals for reasons of safety.

Warning: The print head is an ESD-sensitive device. To avoid damage, do not touch either its printing parts or connecting parts.

2．Caution

1) Install the printer on a flat and stable surface.
2) Reserve adequate space around the printer so that convenient operation and maintenance can be performed.
3) Keep the printer away from water source, direct sunlight, strong light and heat.
4) Do not use or store the printer in a place exposed to heat or fire, moisture or other pollution.
5) Do not place the printer in a place exposed to vibration or impact.
6) No dew condensation is allowed to the printer. In case of such condensation, do not turn on the power until it has completely gone away.

7) Connect the power cord to an appropriate grounding outlet. Avoid sharing a single electrical outlet with large power motors and other devices that may cause the fluctuation in voltage.
8) Disconnect the power cord if the printer is idle for a long time.
9) Do not spill water or other electric substances (like metal) on the printer. If this happens, turn off the power immediately.
10) Do not allow the printer to start printing when there is no recording paper installed, otherwise the print head and platen roller will be damaged.
11) To ensure quality print and normal lifetime, use recommended or good quality paper.
12) Shut down the printer when connecting or disconnecting interface connectors to avoid damage to the control board.
13) Set the print darkness to a lower grade as long as the print quality is acceptable. This will help to keep the Printhead durable.
14) The printer should only be disassembled or repaired by a technician, who is certified by ORIENT Technologies.
15) Keep this manual safe and at hand for reference purpose.

1 Introduction

1.1 Outline

The BTP-R580 is a high performance, high speed thermal printer. It can be widely used for real-time receipt printing applications, such as for POS systems, restaurant, bars, ATM etc.

The BTP-R580 can be connected to host computers via a parallel interface, serial interface, USB interface, Ethernet interface or WLAN interface. The printer can also be connected with cash-drawers and the Herald kitchen alarm system.

The BTP-R580 offers drivers under WINDOWS98/NT4.0/2000/XP/VISTA and special utility software to handle amongst others downloading of logos and fonts.

1.2 Main Features

- ◇ Full spill proof design (meets IPX1 standard)
- ◇ Low noise, high printing speed up to 230mm/s
- ◇ Easy paper loading
- ◇ Paper front exit and straight paper path for reliable printing
- ◇ Internal power supply
- ◇ Easy operation and maintenance
- ◇ Simple paper jam clearing
- ◇ Continuous paper or marked paper can be used
- ◇ Three different paper width
- ◇ Auto paper cutting
- ◇ Cash drawer control connector

- ◇ Choice from several interfaces (“daughter boards”)
- ◇ Optional HERALD kitchen alarm system

2 Main Specification

2.1 Technical Specification

Item	Parameter	
Print mode	Thermal line	
Resolution	203DPI	
Print speed	230mm/s (Max.)	
Print width	Max. 80mm	
Paper type	Continuous paper/Marked paper	
Barcode	UPC-A, UPC-E, EAN-8, EAN-13 , Coda bar, Code39, ITF , Code128, Code93, Pdf417	
Character	Standard ASCII(12×24), compressed ASCII(9×17) GB2312, GB18030, Korean, Japanese, Traditional Chinese	
Character enlargement	All fonts can be enlarged vertically and horizontally up to 6 times	
Character rotation	0°, 90°, 180°, 270°	
Paper near end	Photo sensor	
Paper end	Photo sensor	
Printer top cover position	Microswitch	
Printhead overheating protection	Thermal resistor	
Graphics	Download bitmap	Direct bitmap print
	8 figures maximum download to a total bitmap buffer of 12KB	Support bitmap mode and can realize fast bitmap printing
Interface	Standard parallel, RS232 (25 pins), RS485, USB, Ethernet or WLAN optional	
Cash drawer	1-2 cash drawers	
Memory	RAM: 2MB, FLASH: 2 MB /4MB	
Power	AC 100-220V, 50/60Hz	
Printhead life	≥150Km (with reference paper)	
Operating temperature and humidity	5～45□, 20% ～ 90% RH (40℃)	

Storage temperature and humidity	-40～55□, 20%～93% (40□)
Dimension	147(W)×205(D)×147(H) mm

Table 2.1-1

2.2 Cutter Specification

Item	parameter	Note
Cutter type	Slide cutter (Guillotine type)	
Cutting time	600ms	The time that one cut takes
Cutting interval	2s	30 times/min. (Max.)
Paper type	0.06～0.1mm	Thermal paper or paper with the same thickness
Operation voltage	24VDC	
Max. static curren	1.2A	24VDC
Cutter lifetime	2,000,000 cuts (reference paper with thickness of 0.06 mm)	Full or partial cuts

Table 2.2-1

- Full cut: Cut off the paper completely ;
- Partial cut: 2 mm paper left in middle

2.3 Paper Specification

2.3.1 Continuous paper

- Paper type: Continuous thermal paper
- Paper supply method: Paper roll
- Paper width: 82.5±0.5mm,80±0.5mm, 57.5±0.5 mm
- Paper thickness: 0.06mm-0.1mm
- Thermal senstive layer: Outside

- Paper roll specifications

  OD(MAX): ϕ100 mm

  ID(Min): ϕ15mm

- Recommended reference paper:

Paper type	Manufacturer
TF50KS - E2C	Nippon Paper Industries Co., Ltd
F240AC/F220-VP	Mitsubishi Paper Mill CO., LTD
KF060-FEAH	NEW OJI Paper CO., LTD.
F70NA	FUJI PHOTO FILM CO., LTD
FV230A1,PA220AG,HP220A	Mitsubishi Paper Mill CO., LTD
PD150R,PD160R	OHJI Paper Co.,Ltd.

Table 2.3.1-1 Recommended paper

Caution:

- ✧ Please use the recommended reference paper type or its equivalents. Using the lower quality paper types might affect the print quality and shorten printhead life.
- ✧ Do not paste the paper to the core.
- ✧ If the paper is contaminated by a chemical or oil, it may discolor or lose heat sensitivity at the polluted spot.
- ✧ Do not rub the paper surface strongly against hard objects, otherwise it may discolor.
- ✧ When the temperature goes up to 70 degrees centigrade, paper will discolor.
- ✧ Don’t use or store paper under high temperature, high humidity and strong light conditions.

2.3.2 Marked paper

In marked paper mode, BTP-R580 determines the cut position and the initial printing position by referencing the position of the black mark. Black marked paper should meet the following requirement besides that of standard paper.

- L_1 Mark length: 3mm≤L_1≤10mm.
- L2 Mark length: L_2≥12mm.
- L3 Distance between marks: 20mm≤L_3<500mm.
- Mark position: Right, middle or left side on paper(80mm
- paper only)
- Reflectivity: The reflectivity of the black mark must be less than 15% while the reflectivity of the paper itself exceeds 85%. There shall be no printed objects like text and images in the area between the black marks.

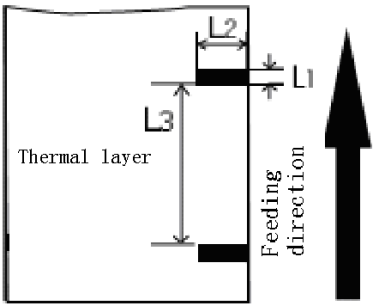


Fig. 2.3.2-1: Mark position sketch map

Caution:

✧ The printer will measure the marks during the printing or feeding process. If the lengths of the mark (L1) is larger than the default value (default: 13mm), the printer will give a paper-end alarm.

2.4 Print and cut position

2.4.1 Print position

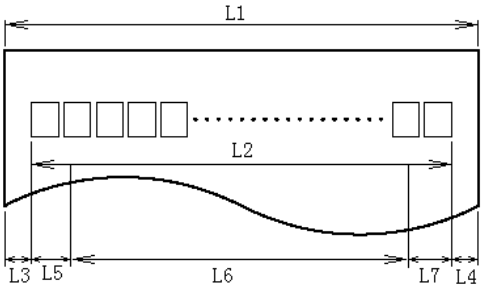
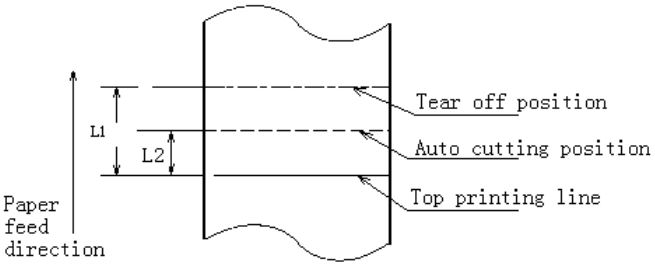


Fig. 2.4.1-1

- L1 Paper holder width: 83.5+0/-0.5mm
- L2 Max Print width: 80mm
- L3: Distance between left end of printhead and left side of paper holder(Fixed) 1.8±0.3mm
- L4: Distance between right end of printhead and right side of paper holder(Fixed) 1.8±0.3mm
- L5: Left margin (default:7mm)
- L6: Print area width. Can set by command (See Programming manual), default is 64mm.
- L7: Right margin (default: 9mm)

2.4.2 Cut position



L1: about: 30mm L2: about: 11mm

Fig. 2.4.2-1

3 Outline and Parts

3.1 Outline and Parts

1—Paper near end sensor adjusting lever
2 —Paper holder
3 —Platen roller
4—Middle cover
5—Bottom cover
6 — Power switch
7—Paper guide
8—Top cover
9 — Cover spanner
10—Printhead
11—Paper roll shaft
12—Printhead support plate
13 —Power connector
14 —Communicate interface
15 —Cash drawer connector

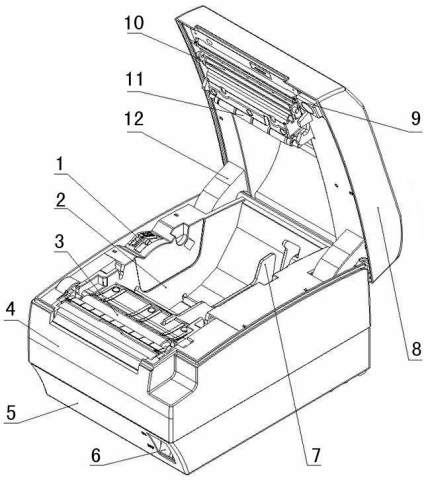


Fig.3.1-1

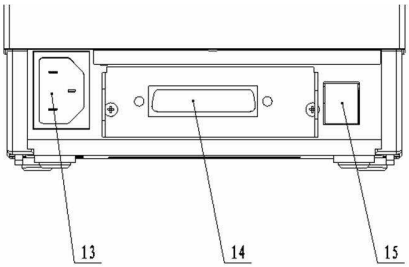


Fig 3.1-2

Functions of parts:

a) Paper guide

Removing the paper guide or putting it in a different slot will allow the printer to use different paper widths listed as follows: 82.5±0.5 mm, 80.5±0.5 mm, 57.5±0.5 mm.

b) Power switch

Switching the power of the printer on or off. “O” power is turned off. “—” power is turned on.

c) Feed button （See Fig 3.1-3）

Switching on the printer while pressing the FEED button will start the printing of the configuration table。

Fig 3.1-3

- In normal status:

  Continuous paper mode:

  - The printer will feed one line when pressing the FEED button for a short time.
  - The printer will feed continuously when pressing the FEED button for a longer time

  Marked paper mode:

  - The printer will feed one line when pressing the FEED button for a short time.
  - The printer will locate the marks when pressing the FEED button for a longer time.

- In error status, the printer will have no activity when the FEED button is pressed.

d) Power Indicator

Indicating power status (ON/OFF).

e) Error indicator

Indicating some error status. Under normal conditions, ERROR LED is always off. Under some error conditions(Cover Open、Cutter Error、Print head is overheating、Input voltage is

abnormal), ERROR LED will flash.

f) Paper indicator

Indicating paper status. Under normal conditions, PAPER LED is always off. When the paper status changes (paper end or paper near end), PAPER LED will flash.

g) Paper end sensor

The paper-end sensor is used to detect whether the paper roll is out of paper.

Notices:

✧ The paper guide is an indispensable part of the printer and should be kept with the printer**.**

3.2 Error LED and Buzzers

1) Error LED

Led	Status	Description
Power Indicator(Green) (POWER)	On	Printer is powered on
	Off	Printer is powered off
Error Indicator(Red) (ERROR)	Off	Printer is in normal status
	Flash	Printer is in error status
Paper Indicator(Red) (PAPER)	On	Paper end or near end
	Flash	Macro definition is running
	Off	Printer is in normal status

Table 3.2-1

2) Description of LED and Error Status

Error information	ERROR LED	PAPER LED	Buzzer
Print head is overheating	Six times	Off	Long-Short-Long
Input voltage is abnormal	Five times	Off	Short-Short-Long
Cutter Error	Four times	Off	Long-Short-Long
Cover Is Open	Three times	Off	Short-Long-Short
Paper End	Twice	On	Short-Short-Short
Paper near end	Off	On	
Finding mark error or verify failed	Flashing continuously	Off	

Table 3.2-2

Caution:

✧ The temperature of the print-head is detected by means of a thermistor sensor. If the temperature of the printhead becomes higher than 65^0 C, the protection circuit of the printer will force the printer to stop printing.

4 Installation

4.1 Unpacking

Check whether all items, that are listed on the packing list are present and in a good condition. If any items are damaged or missing, please contact your dealer.

4.2 Printer installation

1) The printer should be installed on a flat and stable horizontal surface.
2) The printers should be away from any water source.
3) Do not place the printer on a surface exposed to vibration or risk from impact.
4) Ensure that the printers can be grounded safely.
5) During operation and maintenance of the printer there should be sufficient space around the printer in accordance with the dimensions as shown in fig. 4.2-1.

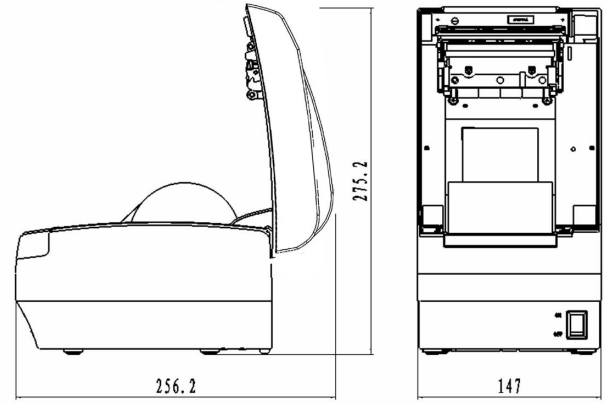


Fig. 4.2-1 Structure spaces

4.3 Connecting the Power Adapter

1) Ensure the printer power is turned off.
2) Insert the power cord into the power socket on the backside of the printer.
3) Fix the power cable cord in the printer with a clip as shown in Fig. 4.3-1.

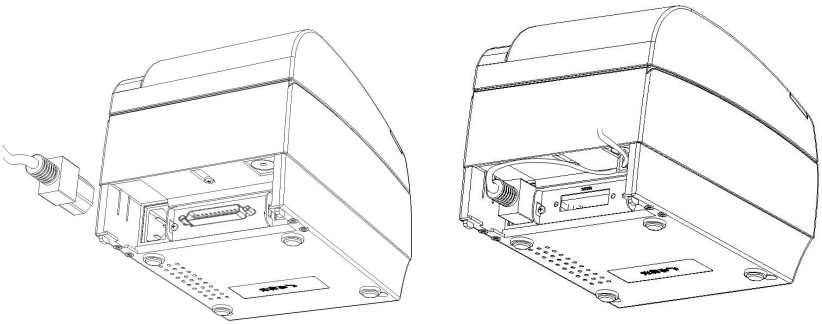


Fig. 4.3-1

Caution:

- ✧ When connecting or disconnecting the power cord, always hold the plug and avoid dragging it by force.
- ✧ Do not pull on the power cord, otherwise the cord may be damaged or broken, causing a risk of fire or electric shock.
- ✧ Do not place the power cord near a heating device, otherwise, the cover of the cord may melt, causing a risk of fire or electric shock.
- ✧ If the printer is not in use for a long period, disconnect the power cord from the wall outlet for safety.

4.4 Connecting interface cable

1) Ensure the printer power is turned off.
2) Connect the suitable interface cable with the correct connector to the connector of the interface board of the printer plug screws (Serial interface) or clip springs (Parallel interface) as shown in Fig. 4.4-1.
3) Connect the other end of the interface cable to the host.

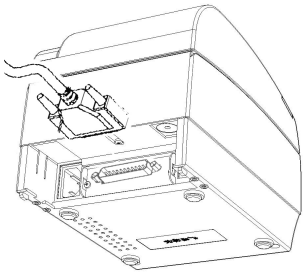


Fig.4.4-1

4.5 Connecting the Cash Drawer

1) Ensure the printer power is turned off.

2) Insert the cash drawer cable into the cash drawer connector on the back of the printer.

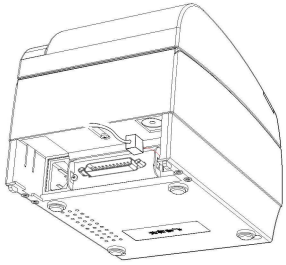


Fig. 4.5-1

Caution:

✧ Cash drawer interface can be connected only with a cash drawer device (Do not connect a telephone line and so on).

4.6 Paper roll loading

4.6.1 Confirm the paper type

After connecting of the printer to the mains voltage, with the host and, if applicable, to the cash drawer, the paper can be loaded and printed.

4.6.2 Load/replace a paper roll

1) Press the latch of the top cover and open it.

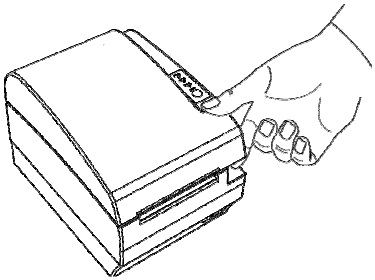


Fig. 4.6.2-1 Opening top cover

2) Place a paper roll in the paper holder as shown the Fig. 4.6.2-2.

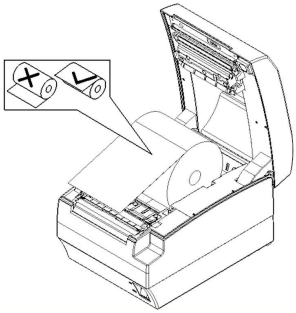


Fig. 4.6.2-2 Paper roll load

3) Close the printer top cover.

⚠ **Caution:**

✧ If needed remove the paper guide. Choose the suitable paper guide position according to the width of the paper roll and mount the paper guide. When inserting the paper roll pay attention to the paper path direction (see Fig. 4.6.2-2).

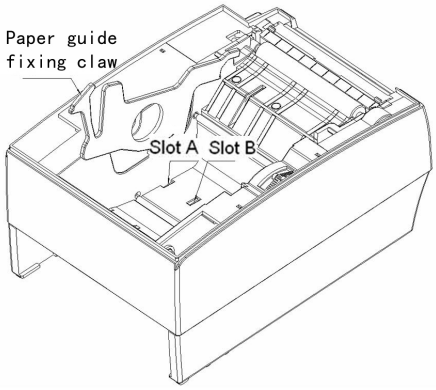


Fig. 4.6.2-3

Note: **Without paper guide:** **82.5±0.5mm.**
Paper guide in the slot A: **80±0.5mm**
Paper guide in the slot B: **57.5±0.5mm**

✧ Ensure that the paper is rolled tightly onto the paper roll, otherwise a paper jam or other fault could happen.

✧ The paper roll should be placed straight in the paper holder and not slantingly. The paper roll should be able to move freely.

4.7 Paper near end position adjustment

Through adjustment of the latch of the paper near end sensor to a corresponding level, different paper roll cores can be

accommodated and also the remaining paper-end length can be approximated.

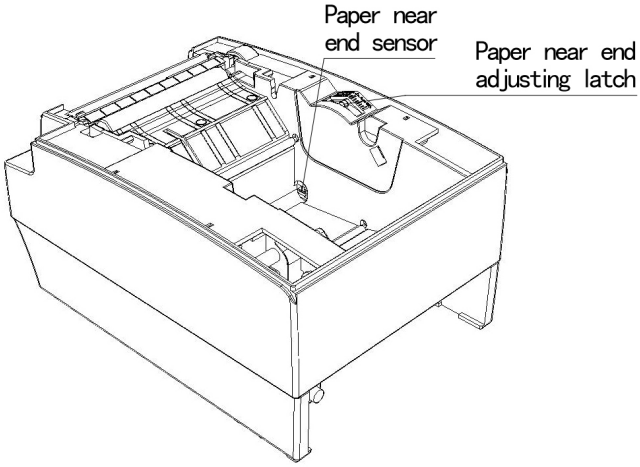


Fig 4.7-1

⚠ Caution:

The factory setting of the paper near end sensor is level 1.

1) When using different Diameter core shaft, C diameter may be different with the length of the remaining paper at the same level.

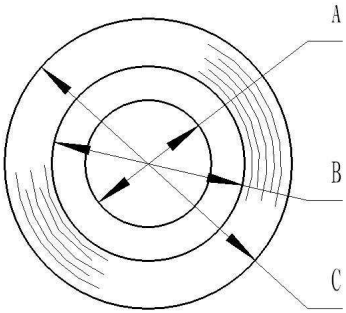


Fig 4.7-2

4.8 Switching on the printer and printing of self-test

4.8.1 Switching on the printer

1) Ensure that the printer is connected to the mains voltage and, if applicable, that the mains voltage is switched on.
2) Switch on the power of the printer.

4.8.2 Printing a self-test page

1) Confirm that the printer is connected to the mains voltage and that a paper roll is in the printer.
2) Confirm that the printer is switched off.
3) Press down the FEED button while switching on the printer, the printer will start printing the configuration sheet. At the end of the configuration sheet the followings text will appear: “Press and Release FEED key to print characters” and “Press and Hold FEED key to config the printer”. The printer is holding and waiting for the input while the PAPER LED is flashing.
4) If the FEED button is pressed down shortly, the printer will print a character test page which is part of the self-test.
5) If the FEED button is pressed down for a longer period than the printer will come in the mode of setting the printer parameters and configuration by key strokes (See APPENDIX A: FEED button Configuration).

4.9 Setting of printer parameters and configuration

The parameters of the printer can be set (configuring) in a detailed way by means of the utility software that is available from the reseller or from Orient Technologies by special request (website:

www.orient-technologies.com. press button “Contact”). However, the majority of the parameters can also be set by using the special key-stroke procedures of the printer. These procedures are simple, do not involve a laptop but only the FEED button on the key-pad of the printer. The parameters that can be set by pressing the Feed button include:

- For the serial interface only: setting of baud rate, parity, data bits, stop bits, handshaking, buffer size and data receive error.
- For all interfaces:
  - setting of mechanism (mark sensor, cutter, buzzer, power adapter)
  - print setting (darkness, paper roll width, left margin, right margin, CR command, code page)
  - Paper sensor setting (paper low alarm, paper end stop)
  - Set default configuration

To start the key-stroke procedure start the self-test procedure as described in chapter 4.8 steps 1 through 3. After the printer has stopped printing the configuration sheet, press and hold the FEED button until the printer starts printing. The printer will print first the Main Menu of the key-stroke procedure.

A more detailed overview of all parameters can be found in Appendix A of this manual.

5 Printer routine maintenance

Caution:

- ✧ Before starting routine maintenance, ensure that the printer is switched off.
- ✧ Do not use solvents like gasoline or acetone.
- ✧ When cleaning sensors, the printer should not be switched on until the pure alcohol has totally evaporated.
- ✧ It is recommended that the maintenance cycle should not be longer than one month.

5.1 Cleaning the platen

The steps for cleaning the platen are as given below:

1) Switch off the printer.
2) Open the top cover of the printer.
3) When the top cover is opened, wipe off stain such as dust on the platen by using a soft cotton cloth with neutral cleaning agent.
4) Close the top cover after the alcohol has evaporated completely.

5.2 Cleaning the mark sensors

The black mark sensors need to be cleaned if the printer has trouble identifying the black marks.

The steps for cleaning sensors are as below:

1) Switch off the printer.
2) Open the top cover of the printer.

3) Wipe off stain or dust from the surface of sensors by using a soft cotton swipe impregnated with pure alcohol.
4) Close the top cover of the printer after the alcohol has evaporated completely.

5.3 Clearing of a paper jam

Remove the paper, if one of the following phenomena occurs:

- The printer fails to feed out paper normally.
- Paper is feeding with load noise.

The steps for removing paper are as below:

1) Switch off the printer.
2) Open the top cover of the printer.
3) If the paper is jammed in the paper path, remove the wrinkled or wasted part of the paper roll.
4) Close the printer top cover.

6 Interface signal

6.1 Parallel interface

Parallel interface can work in IEEE 1284 compatible mode or half-byte mode, which is a 36 pin socket.

The Interface is defined as below:

Pin#	Signal source	Signal definition
1	H	NStrobe
2	H	Data 0 (Least Significant Bit)
3	H	Data 1
4	H	Data 2
5	H	Data 3
6	H	Data 4
7	H	Data 5
8	H	Data 6
9	H	Data 7 (Most Significant Bit)
10	P	NAck
11	P	Busy
12	P	Perror
13	P	Select
14	H	nAutoFd
15		Not defined
16		Logic Gnd
17		Chassis Gnd
18	P	Peripheral Logic High
19		Signal Ground (nStrobe)
20		Signal Ground (Data 1)
21		Signal Ground (Data 2)
22		Signal Ground (Data 3)
23		Signal Ground (Data 4)
24		Signal Ground (Data 5)
25		Signal Ground (Data 6)

26		Signal Ground (Data 7)
27		Signal Ground (Data 8)
28		Signal Ground (PError, Select, and nAck)
29		Signal Ground (Busy and nFault)
30		Signal Ground (nAutoFd, nSelctIn, and nInit)
31	H	NInit
32	P	NFault
33		Not defined
34		Not defined
35		Not defined
36	H	nSelectIn

Table 6.1-1

6.2 Serial interface

The serial interface of the printer is compatible with RS-232 and is equipped with a 25-pin female D type connector.

PIN No.	Signal definition
PIN1	Frame Ground
PIN2	TXD
PIN 3	RXD
PIN 4	DTR
PIN 5	Not connected
PIN6	DSR
PIN 7	Signal Ground
PIN 8~19	Not connected
PIN 20	DTR
PIN 21~25	Not connected

Table 6.2-1

The user may check the current setting status of the interface by printing a configuration table. The default setting is as follows:
Baud rate: 19200bps, 8 data bit, none Parity, 1 stop bit
Handshake: DTR/DSR

6.3 USB interface

- Parameters

  Data transmission: Support USB1.1 protocol

  Connector (Printer side): USB B type socket. Support and pass USB HUB

- Interface signal definition and functions

Pin No.	Signal	Description
1	VBUS	+5V
2	DATA-	Printer data transmit line minus
3	DATA+	Printer data transmit line plus
4	GND	Ground

Table 6.3-1

- **Interface connector**

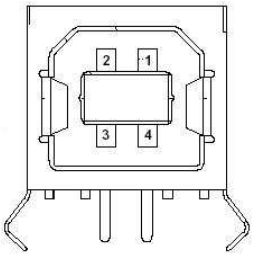


Fig. 6.3-2 USB "B" type connector

6.4 Ethernet interface

- **Feature**
  - Supports 10BASE-T communication
  - Compatible with Ethernet II standard frame type

- LEDs indicate network connecting status and data transmission status.
- Supports 9100 port print
- Supports ASB(Auto status back)
- Supports parameter configuration
- Supports firmware program updated online
- Supports printer status query and interface module maintenance based on HTTP.

➢ **Interface signal definition**

The parameters of Ethernet interface socket match 10BASE-T standard of IEEE802.3. The interface signal is defined as below:

Pin	Signal name	Description
1	TX+	Data sending+
2	TX-	Data sending-
3	RX+	Data reception+
4	NC	Reserve
5	NC	Reserve
6	RX-	Data reception-
7	NC	Reserve
8	NC	Reserve

Table 6.4 -1 Interface module pin list

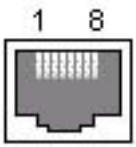


Fig. 6.4-2 Interface module socket

6.5 WLAN interface

- Features
  - Supports 802.11b、802.11g communication
  - Supports 9100 port print and LPR print
  - Supports ASB (Auto Status Back)
  - Supports parameter configuration
  - Supports firmware program upgraded online
  - Supports HTTP
- Protocols are supported as below
  - IP
  - ARP
  - ICMP
  - TCP
  - UDP
  - DHCP
  - TFTP
  - HTTP

WLAN interface uses wireless USB network card of which the main specification should be requested from the local distributor or manufacture.

6.6 Signal definition of power connector

Internal signal definition of power

Pin	Signal name
1	E
2	L
3	N

Table 6.6-1

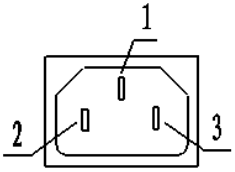


Fig6.6-2 Power socket

6.7 Signal definition of cash drawer interface

1) Electric characteristics
   - Driving voltage: DC 24 V
   - Driving current: Max. current is 1 A
   - The signal for checking cash drawer status:

     "L" = 0 ~ 0.5 V "H" = 3.3 V

2) Cash drawer interface socket uses RJ-11 6P connector.

Fig. 6.7-1

3) Interface signal definition

No.	Signal	Functions
1	FG	Frame
2	DRAWER 1	Driving signal of cash drawer1
3	DRSW	Check signal for cash drawer status
4	VDR	Cash drawer driving power
5	-	NC
6	GND	Common port with circuit

Table 6.7-2

Caution:

- ✧ Do not allow disconnection or connection of the interface cable plug when the printer and the host are switched on.
- ✧ Avoid the presence of devices like motors with large power as these may cause voltage fluctuations.
- ✧ Always use shielded interface cables.

7 Troubleshooting

Refer to this section if the printer has any problems.

If the problem cannot be solved, please consult with ORIENT Technologies or your supplier..

7.1 Printer doesn't work

Faults	Possible reasons	Solution
Power LED is off and the printer doesn't work	Printer is off	Connect the printer power
	Printer is off	Turn on the printer
	Circuit board is damaged	Contact ORIENT or your supplier

Table 7.1-1

7.2 Alarm LED and buzzer sound

Faults	Possible reasons	Solution
Paper LED on and buzzer sounds	Paper end	Replace with new paper roll
Paper LED on	Paper near end	Replace with new paper roll
Alarm LED flashes and buzzer sounds	Input voltage is abnormal	Turn off the printer power and check The input voltage
	Print head is overheated	Turn off the printer power and wait for the print head temperature recovered normally
	Cutter Error	Cutter resetting (reference 7.4)
	Cover is Open	Close the cover again
	Serious fault occurs	Contact with our distributor or manufacturer

Table 7.2-1

7.3 Problems with printing

Faults	Possible reasons	Solution
Printout is light	Print head is damaged	Replace print head
Printout is not clear or has dirt	Print head or platen is dirty	Clean print head or platen
Paper cannot be fed out properly	Paper jam	Open top cover and check paper path to remove paper jam

Table 7.3-1

7.4 Cutter resetting

If the moving blade of the cutter does not return to its home-position, then the top cover should be opened and the printer should be switched on. This will force the moving blade to reset and return to its home-position. Please contact ORIENT Technologies or your supplier if the problem persists.

8. Accessories

8.1HERALD – kitchen alarm system

1) Functions

The Herald is connected to the cash drawer connector of the printer. When the printer sends Cash drawer signal, the Herald will give sound and light signals.

2) Light and sound signal mode

- There are three levels of light signals:
  First level: flash;
  Second level: always light;
  Third level: not light.
- There are three levels of sound signals:
  First level: sound 1;
  Second level: sound 2;
  Third level: sound 3.

3) Supported firmware

The firmware version supporting the Herald should be above FV1.000. All interfaces support this function.

4) External connection sketch map.

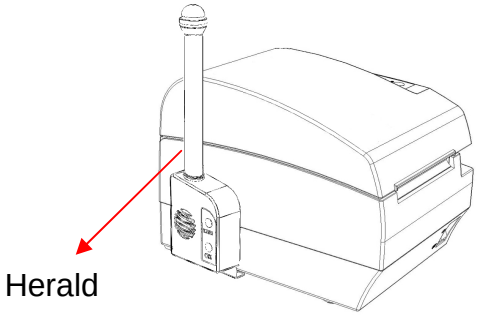


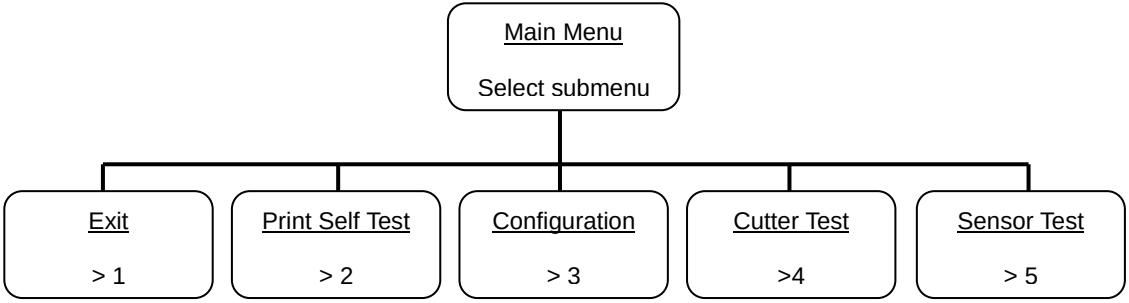
Fig 8.1-1 External connection sketch map

APPENDIX A: FEED button Configuration

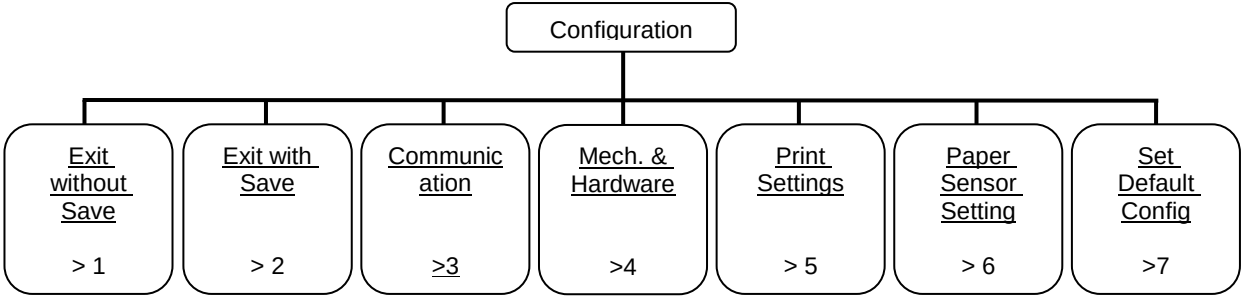
Parameter setting (configuring) by Feed button

1) Hold the FEED button pressed while switching the printer on.
2) After the printer has printed the configuration sheet, press and hold the FEED button to configure the printer. The main menu for the key-stroke setting procedure is printed.
3) The procedure consists of several sub-menus and step-by-step working is needed.
4) With every choice is a number. This number indicates the number of times the FEED button has to be shortly pressed. After this, the choice is validated by an additional, but longer press of the FEED button (1 sec).
5) After all settings have been done, they are stored in the printer by stepping back through the submenus to the main menu by using the number “1” plus additional press for validation.

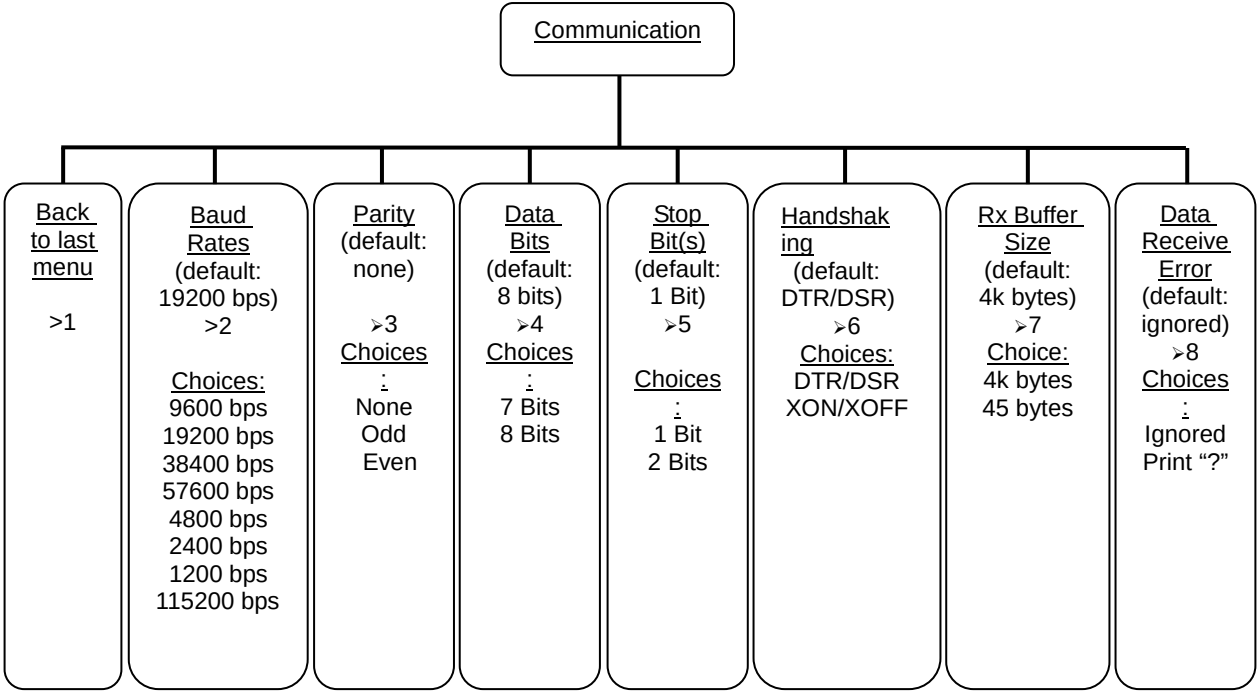
- **Parameter setting by Feed button**



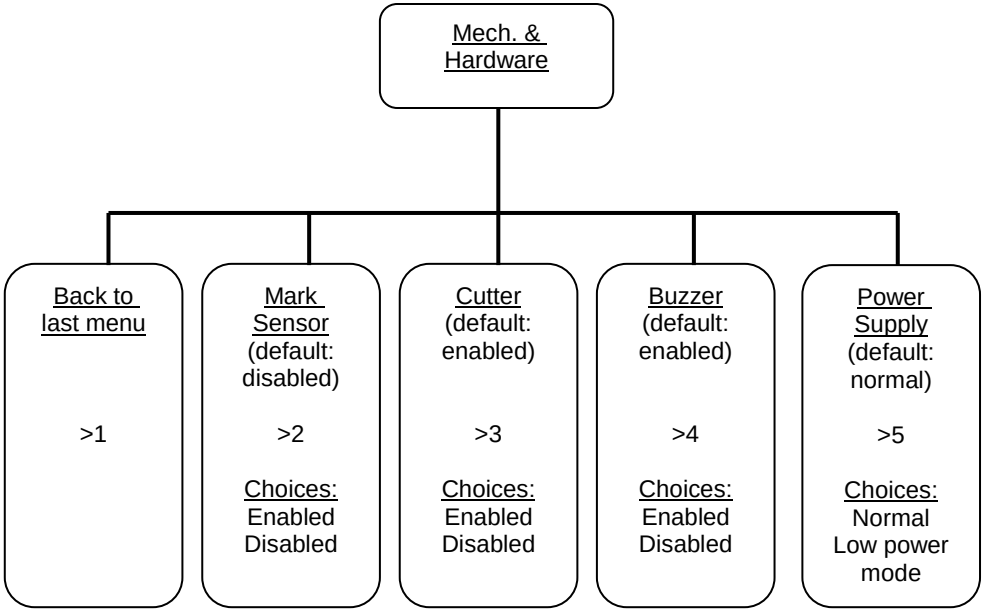
- **Setting configuration of the printer**



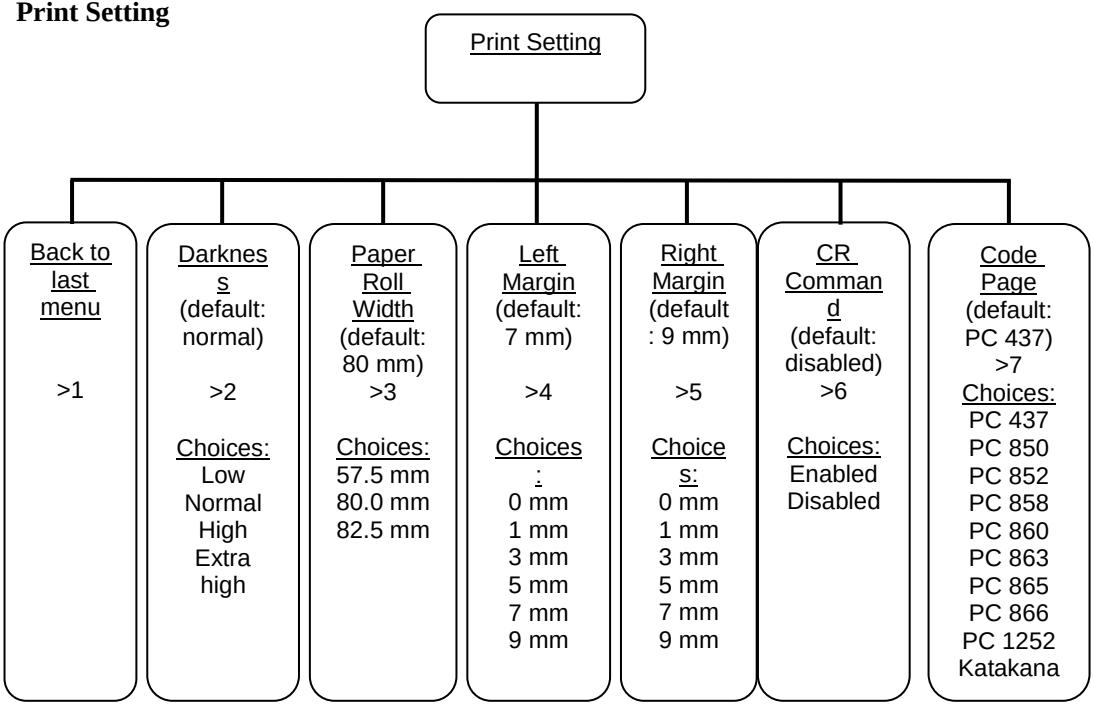
- **Configuration of the serial interface**



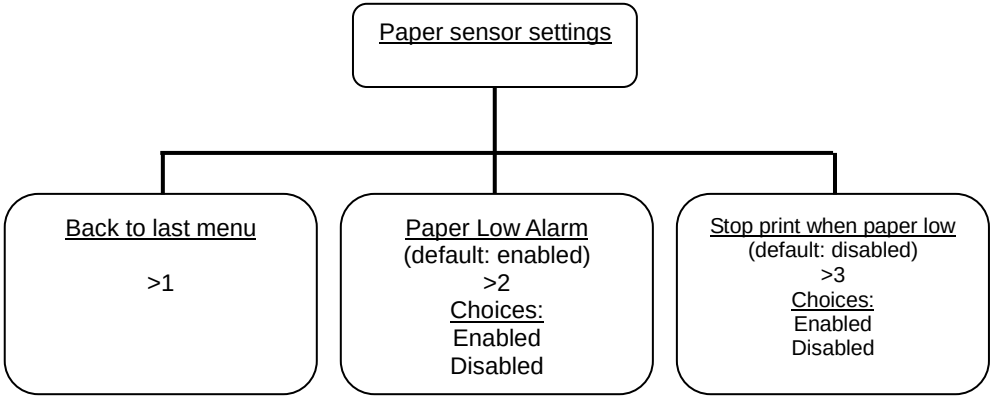
- **Setting Mechanism and Hardware**



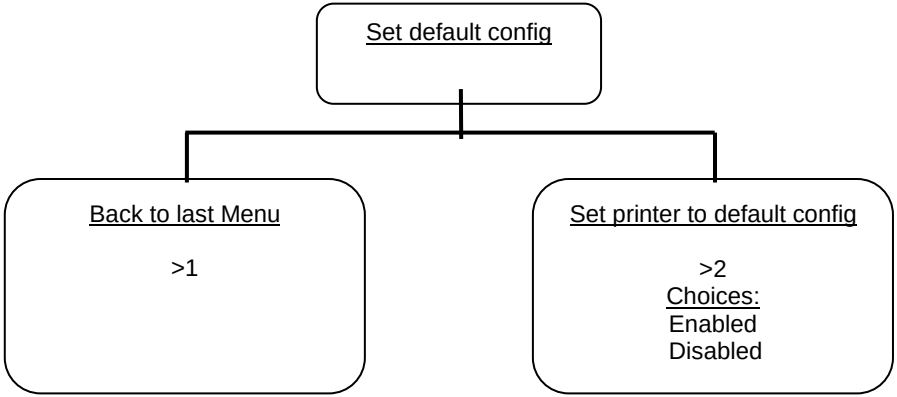
- **Print Setting**



- **Paper Near-end Sensor setting**



- **Set Default Configuration**



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